

## Students who took Advanced Placement (AP) examinations

*The Advanced Placement (AP) program is associated with a demanding academic curriculum and illustrates the desire of high schools, colleges, and universities to offer college-level courses to high school students. By offering AP courses, schools give students the opportunity to participate in the AP program and acquire college credit for their knowledge of college-level subjects. Measuring the number of students per 1,000 12<sup>th</sup>-graders who participated in AP examinations each year shows the level of importance students, schools, and colleges place on the AP program and how that importance has changed over time.*

- Between 1984 and 1996, the number of students who took AP exams increased dramatically, rising from 50 to 131 students per 1,000 12<sup>th</sup>-graders. The number of examinees increased for both males and females and for whites, blacks, and Hispanics during this period.
- In 1984, equal proportions of male and female students took AP examinations. Between 1984 and 1996, the number of females who took the examinations rose at a faster rate than did the number of males who took the examinations. In 1996, 144 females compared to 117 males per 1,000 12<sup>th</sup>-graders took AP examinations.
- In 1996, whites were more likely than blacks or Hispanics to take AP examinations in all subject areas, with the exception of foreign languages. Hispanics were almost three times as likely to take a foreign language AP examination as whites.

### Number of students<sup>1</sup> who took AP examinations (per 1,000 12<sup>th</sup>-graders), by sex and race/ethnicity: 1984–96

Sex and race/ethnicity	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
<b>Total<sup>2</sup></b>	<b>50</b>	<b>59</b>	<b>64</b>	<b>66</b>	<b>81</b>	<b>88</b>	<b>100</b>	<b>103</b>	<b>109</b>	<b>117</b>	<b>115</b>	<b>125</b>	<b>131</b>
Sex													
Male	50	61	65	68	76	86	101	96	102	108	101	111	117
Female	50	58	63	65	85	90	98	111	117	127	129	140	144
Race/ethnicity													
White	48	60	62	63	82	92	103	107	112	115	116	125	133
Black	8	11	12	13	21	20	26	25	26	31	32	37	32
Hispanic	24	21	27	30	48	54	54	67	68	80	63	75	74

<sup>1</sup> "Number of students" includes 11<sup>th</sup>- and 12<sup>th</sup>-graders. See the supplemental note to this indicator for further discussion.

<sup>2</sup> Included in the totals but not shown separately are students from other racial/ethnic groups.

### Number of AP examinations<sup>1</sup> taken and the number of examinations with scores of 3 or higher (per 1,000 12<sup>th</sup>-graders), by subject area, sex, and race/ethnicity: 1996

Sex and race/ethnicity	Number of AP examinations taken						Number of examinations with scores of 3 or higher					
	Social studies	English	Foreign language	Calculus	Computer science	Science	Social studies	English	Foreign language	Calculus	Computer science	Science
<b>Total<sup>2</sup></b>	<b>58</b>	<b>55</b>	<b>17</b>	<b>33</b>	<b>3</b>	<b>35</b>	<b>35</b>	<b>36</b>	<b>12</b>	<b>21</b>	<b>1</b>	<b>21</b>
Sex <sup>3</sup>												
Male	62	42	13	37	5	41	40	27	9	25	3	28
Female	69	70	23	30	1	34	39	46	17	18	0	19
Race/ethnicity												
White	60	59	12	33	3	34	37	40	7	21	1	21
Black	13	15	3	6	0	7	5	5	1	2	0	2
Hispanic	23	23	35	10	1	10	10	10	31	5	0	4

<sup>1</sup> "Number of AP examinations" includes all examinations taken by 11<sup>th</sup>- and 12<sup>th</sup>-graders. See the supplemental note to this indicator for further discussion.

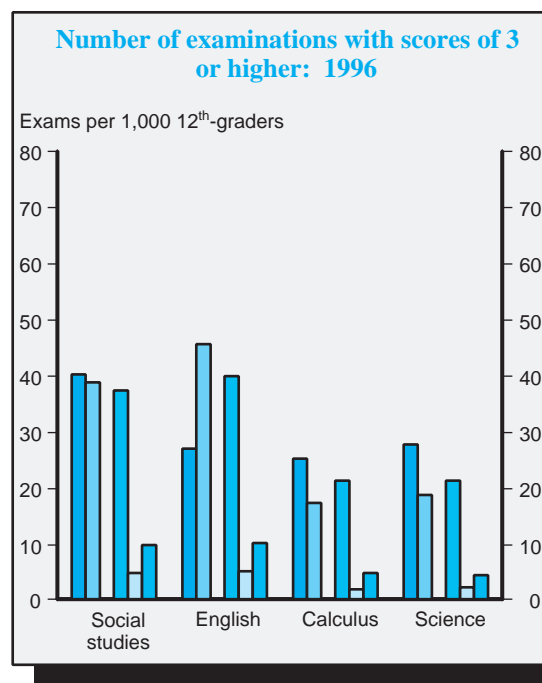
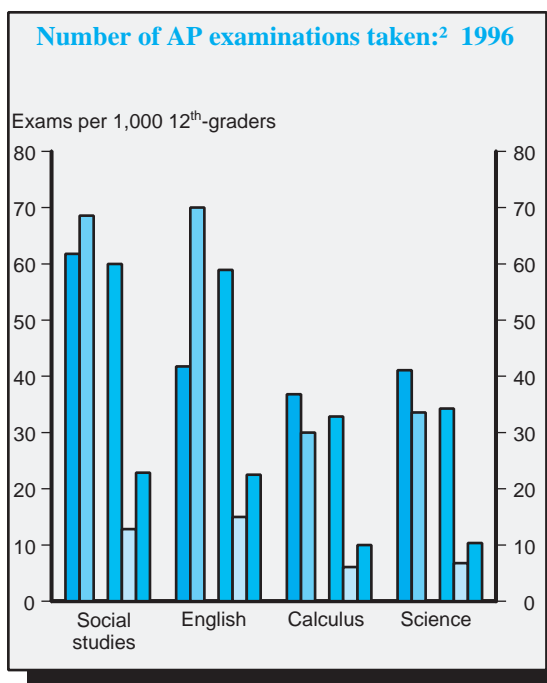
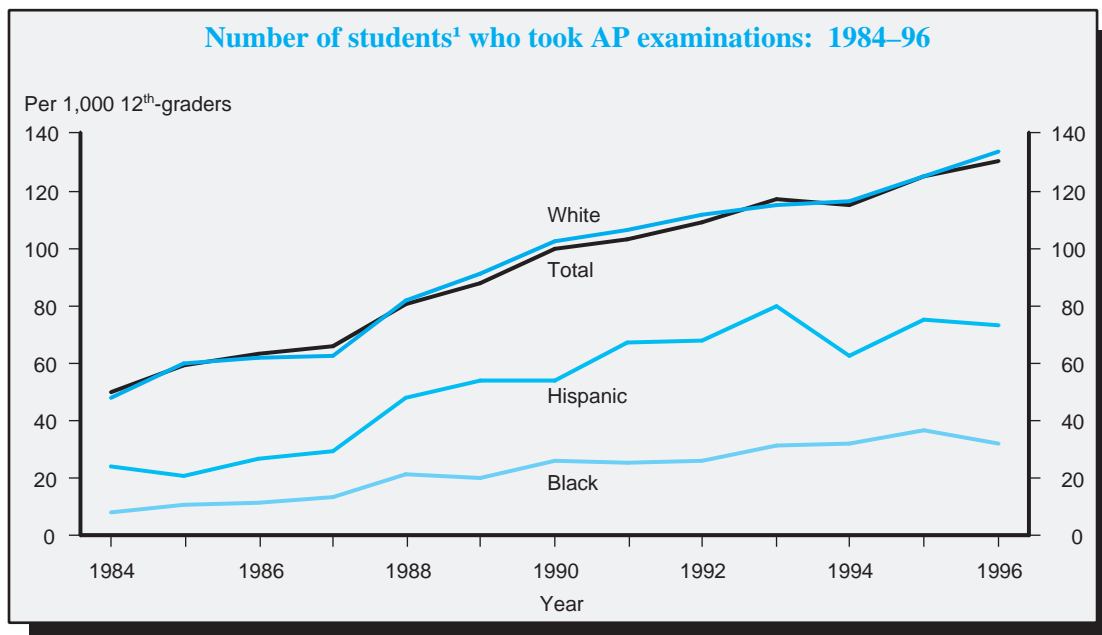
<sup>2</sup> Included in the total but not shown separately are students from other racial/ethnic groups.

<sup>3</sup> The number of examinations taken by males and females includes a small number of examinations taken by 9<sup>th</sup>-graders, 10<sup>th</sup>-graders, college students, and others (9 percent of all students who took AP examinations in 1996).

NOTE: Students scoring 3 or higher on an AP examination usually receive college credit. Since, on average, AP candidates take more than one examination, there is not a 1:1 ratio between candidates and examinations. See the supplemental note to this indicator for a description of AP course categories and a discussion of the calculations for this analysis.

SOURCE: The College Board, Advanced Placement Program, *National Summary Reports*, various years (Copyright © 1996 by the College Entrance Examination Board. All rights reserved.). U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

## Students who took Advanced Placement (AP) examinations



■ Male ■ Female ■ White ■ Black ■ Hispanic

<sup>1</sup> "Number of students" includes 11<sup>th</sup>- and 12<sup>th</sup>-graders. See the supplemental note to this indicator for further discussion.

<sup>2</sup> "Number of AP examinations" includes all examinations taken by 11<sup>th</sup>- and 12<sup>th</sup>-graders. See the supplemental note to this indicator for further discussion.

NOTE: The number of examinations taken by males and females includes a small number of examinations taken by 9<sup>th</sup>-graders, 10<sup>th</sup>-graders, college students, and others (9 percent of all students who took AP examinations in 1996). Students scoring 3 or higher on an AP examination usually receive

college credit. Since, on average, AP candidates take more than one examination, there is not a 1:1 ratio between candidates and examinations. See the supplemental note to this indicator for a description of AP course categories and a discussion of the calculations for this analysis.

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## Note to Indicator 27: Advanced Placement examinations

The Advanced Placement (AP) examinations are offered to high school students annually to give them an opportunity to demonstrate college-level achievement. The AP program is open to all students. However, it is advised that only students who have studied beyond the normal secondary school level take these examinations. High school students take the examinations voluntarily; however, several states have legislation that supports and encourages participation in the AP program.

Data for this analysis were taken from the October Current Population Survey (CPS) and should not be compared to data from *The National Education Goals Report, 1996*. In this analysis, the number of 11<sup>th</sup>- and 12<sup>th</sup>-graders who took AP examinations and the number of examinations taken by these students were compared to populations of 1,000 12<sup>th</sup>-graders as defined by the October CPS. This comparison provides an estimate of the average number of students who participate in the AP program for a single cohort and the average number of AP exams a single cohort takes, because students rarely take any given AP examination (e.g., biology) in both the 11<sup>th</sup> and 12<sup>th</sup> grades.

Enrollment figures from the CPS include both public and private school data, which are different from the data shown in *The National Education Goals Report*. Enrollment figures from *The National Education Goals Report* are based on the Common Core of Data (CCD), which does not include data from private schools but produces private school enrollment data by multiplying the public school figures by a private school enrollment adjustment factor. As a result, data in this analysis are not directly comparable to data found in the *Goals* report.

### Changes from *The Condition of Education 1997*

To calculate results for this analysis, calculations from the 1997 edition of *The Condition* were changed in three ways: 1) 9<sup>th</sup>-graders, 10<sup>th</sup>-graders, college students, and others were excluded from the number of students who took AP examinations and from the number of examinations taken. Only 11<sup>th</sup>- and 12<sup>th</sup>-graders were included; 2) only 12<sup>th</sup>-graders were included in the denominators for the calculations (see above); and 3) the CPS population in the 1997 analysis included only those 11<sup>th</sup>- and 12<sup>th</sup>-graders who were under the age of 34. This year, the CPS population of 12<sup>th</sup>-graders (the denominator used in the calculations) includes all age groups, since it is possible that someone over the age of 34 could be enrolled in the 11<sup>th</sup> or 12<sup>th</sup> grade and have

taken AP examinations, or the age of a 12<sup>th</sup>-grader could have been improperly reported.

### Subject definitions

Below are the specific subjects that make up the AP examination subject areas shown in this analysis:

Social studies	U.S. History, European History, U.S. Government and Politics, Comparative Government and Politics, and Psychology;
English	English Language and Composition, and Literature and Composition;
Foreign language	French Language, French Literature, German Language, Latin/Virgil, Latin Literature, Spanish Language, and Spanish Literature;
Calculus	Calculus AB and Calculus BC;
Computer Science	Computer Science A and Computer Science AB;
Science	Biology, Chemistry, Physics B, Physics C (mechanical), and Physics C (electricity and magnetism).

### Examinations

Most of the AP examinations contain multiple choice and free-response sections. The examinations are graded based on scores from both types of responses. The program's examinations are criterion- rather than normed-referenced, with cut scores established at four different points along these scales to designate a grade of 5, 4, 3, 2, or 1 (grade of 5: extremely well qualified; grade of 4: well qualified; grade of 3: qualified; grade of 2: possibly qualified; and grade of 1: no recommendation). The grades are determined by the chief readers, who rely on their subject matter expertise, statistical equating data, and data from comparability studies. Cut scores frequently vary from year to year for each examination, reflecting changes in the level of examination difficulty. Therefore, the College Board does not recommend using grade data for trend analysis. Grades of 3 and above are usually accepted for college credit and advanced placement at participating colleges and universities, although credit varies among institutions.

SOURCE: The College Board, *A Guide to the Advanced Placement Program*, 1992.